References for Course on QM : Oxford 1980

Background reading in QM.

Either S. Gasiorowicz: Quantum Physics (1974), chs. 6,10, 14.

or P. Matthews: Introduction to Quantum Mechanics, 3rd ed. (1974), chs. 6,8, 12.

Background reading in Mathematics.

G. C. Shepherd: Vector Spaces of Finite Dimension (1966)

G. F. Simmons: Introduction to Topology and Modern Analysis, (1963), esp. pp. 290 - 297, Ch. II.

Textbooks on Philosophy of QM

M. Jammer: The Philosophy of Quantum Mechanics (1974)

B. d'Espagnat: The Conceptual Foundations of Quantum Mechanics, 2nd ed. (1976).

The Bell Inequality and Nonlocality

J. F. Clauser and A. Shimony: 'Bell's Theorem: Experimental Tests and Implications.' Rep. Prog. Phys. 41 (1978), 1881 - 1927 - general survey of the field with good bibliography.

P. Eberhard: Nuovo Cimento 38 B (1977), 75 .

A. Peres: Am. Journal Phys. 46 (1978), 745 .

H. Stapp : Phys. Rev. D3 (1971), 1303 .

The Kochen-Specker Paradox

F. J. Belinfante : A Survey of Hidden Variable Theories (1973) ch. 3.

Jammer (above) ch. 7 (esp. p. 325).

J. Bub: The Interpretation of Quantum Mechanics (1974) ch. 5.

Complementarity

E. Scheibe: The Logical Analysis of Quantum Mechanics (1973), ch. 1.

Quantum Logic

N. Rescher: Many-valued Logic (1969), ch. 3.

M. Dummett: 'Is Logic Empirical' in Contemporary British Philosophy (1976),

Quantum Logic (cont'd)

H. Putnam: 'How to think Quantum-logically' in P. Suppes (ed.) Logic and Probability in Quantum Mechanics (1976).

Jammer, (above) ch. 8.

The Einstein - Podolsky - Rosen Paradox

A. Einstein et al Phys. Rev. 47 (1935), 777.

N. Bohr Phys. Rev. 48 (1935), 696.

Jammer, (above) ch. 6.

D'Espagnat (above) ch. 8.

Deochhamized QM.

B. C. Van Frassen: 'Semantic Analysis of Quantum Logic' in C. Hooker (ed.) Contemporary Research in the Foundation and Philosophy of Quantum Theory (1973).

R. Healey 'Quantum Realism: naiveté is no excuse', Synthese, 42, 1979, 121-144.

Forthcoming publications:

H. Brown and M. Redhead: A Critique of the Disturbance Theory of Indeterminacy in Quantum Mechanics; Foundations of Physics. 11 (1981), 1.

M. Redhead: 'Experimental Tests of the Sum Rule' Philosophy of Science. 48 (1981), 50.

M. Redhead: 'Causality, Relativity and the EPR Paradox'. Proc. of the 1981 Keele Conference.